Applicant : Shunpei Yamazaki et al. Serial No.: 09/752,817 Filed : January 3, 2001 Page : 2 of 11

## Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application.

## Listing of Claims

1-4. (Canceled)

5. (Currently Amended) A display system comprising:

a light emitting device comprising a plurality of pixels, each of said plurality of pixels having at least an EL (electro-luminescent) element;

a sensor for obtaining an information signal of an environment;

a CPU (central processing unit) for converting said information an electrical signal of the environment supplied from said sensor into a correction signal;

a voltage changer for changing controlling a corrected potential applied to the EL element based on said correction signal; and

an EL driving power source connected to said voltage changer,

wherein said voltage changer is electrically connected to the EL element of each of the plurality of pixels via a switch.

- 6. (Original) A display system according to claim 5, wherein said information signal comprises a user's living-body information.
- 7. (Currently Amended) A display system according to claim 5, wherein said plurality of pixels light emitting device, said sensor, said CPU and said voltage changer are formed on a same substrate.
- 8. (Currently Amended) A display system according to claim 5, wherein said lightemitting device is an EL (electro-luminescent) display device element comprises an organic material or an inorganic material.

Applicant : Shunpei Yamazaki et al.

Serial No.: 09/752,817 Filed: January 3, 2001 Page: 3 of 11

9. (Previously Presented) A display system according to claim 5, wherein said display system is incorporated in one selected from the group consisting of a video camera, a digital camera, a head-mount display, a car navigation system, a portable telephone, an image reproduction apparatus, a car audio equipment, and a personal computer.

## 10. (Currently Amended) A display system comprising:

a light emitting device comprising a plurality of pixels, each of said plurality of pixels comprising at least an EL (electro-luminescent) element having two electrodes with an EL layer interposed therebetween and a current control thin film transistor electrically connected to one of said two electrodes of said EL element;

a voltage changer electrically connected to the other of said two electrodes of said EL element via a switch; and

an EL driving power source connected to said voltage changer,

wherein a potential applied to the other of said two electrodes of said EL element is changed by said voltage changer eontrolled based on an information signal of an environment.

- 11. (Original) A display system according to claim 10, wherein said information signal comprises a user's living-body information.
- 12. (Previously Presented) A display system according to claim 10, wherein said display system is incorporated in one selected from the group consisting of a video camera, a digital camera, a head-mount display, a car navigation system, a portable telephone, an image reproduction apparatus, a car audio equipment, and a personal computer.
  - 13. (Currently Amended) An active matrix display device comprising: a voltage changer;
  - a sensor for obtaining an information signal of an environment; and

Applicant: Shunpei Yamazaki et al. Serial No.: 09/752,817

Filed : January 3, 2001 Page : 4 of 11

a plurality of pixels, each of said plurality of pixels comprising:

at least one thin film transistor over a substrate, said thin film transistor comprising at least an active layer, and a gate electrode adjacent to said active layer with a gate insulating film interposed therebetween; and

an EL (electro-luminescent) element comprising at least an EL layer between an anode and a cathode, one of said anode and said cathode being electrically connected to said active layer,

wherein a potential applied to the other of said anode and said cathode is <u>changed by said</u>

<u>voltage changer</u> <del>controlled</del> based on said information signal of the environment by converting

said information signal to a corrected potential,

wherein said voltage changer is electrically connected to said EL element of each of said plurality of pixels via a switch, and

- 14. (Currently Amended) An active matrix display device according to claim 13, wherein said <u>plurality of pixels display device</u> and said sensor are formed over a same substrate.
- 15. (Previously Presented) An active matrix display device according to claim 13, wherein said sensor comprises a CCD (charge-coupled device) or a photo-diode.
- 16. (Original) An active matrix display device according to claim 13, wherein said information signal comprises a user's living-body information.
- 17. (Previously Presented) An active matrix display device according to claim 13, wherein said display device is incorporated in at least one selected from the group consisting of a video camera, a digital camera, a head-mount display, a car navigation system, a portable telephone, an image reproduction apparatus, a car audio equipment, and a personal computer.

Applicant: Shunpei Yamazaki et al. Serial No.: 09/752,817

Filed : January 3, 2001 Page : 5 of 11

(Currently Amended) An active matrix display device comprising:

a voltage changer;

a sensor for obtaining an information signal of an environment; and

a plurality of pixels, each of said plurality of pixels comprising:

at least one thin film transistor over a substrate, said thin film transistor comprising at least an active layer, and a gate electrode adjacent to said active layer with a gate insulating film interposed therebetween; and

an EL (electro-luminescent) element comprising at least an EL layer between an anode and a cathode, one of said anode and said cathode being electrically connected to said active layer[[;]].

wherein said information signal is converted to a corrected potential and said corrected potential [[is]] applied to the other of said anode and said cathode is changed by said voltage changer,

wherein said voltage changer is electrically connected to said EL element of each of said plurality of pixels via a switch, and

- 19. (Currently Amended) An active matrix display device according to claim 18, wherein said <u>plurality of pixels display device</u> and said sensor are formed over a same substrate.
- 20. (Previously Presented) An active matrix display device according to claim 18, wherein said sensor comprises a CCD (charge-coupled device) or a photo-diode.
- 21. (Original) An active matrix display device according to claim 18, wherein said information signal comprises a user's living-body information.
- 22. (Previously Presented) An active matrix display device according to claim 18, wherein said display device is incorporated in at least one selected from the group consisting of a

Applicant: Shunpei Yamazaki et al. Serial No.: 09/752,817

Filed : January 3, 2001 Page : 6 of 11

video camera, a digital camera, a head-mount display, a car navigation system, a portable telephone, an image reproduction apparatus, a car audio equipment, and a personal computer.

- 23. (Currently Amended) An active matrix display device comprising:
- a voltage changer;
- a sensor for obtaining an information signal of an environment;
- a CPU (central processing unit) for converting said information signal to a corrected signal; and
  - a plurality of pixels, each of said plurality of pixels comprising:
- at least one thin film transistor over a substrate, said thin film transistor comprising at least an active layer, and a gate electrode adjacent to said active layer with a gate insulating film interposed therebetween; and
- an EL (electro-luminescent) element comprising at least an EL layer between an anode and a cathode, one of said anode and said cathode being electrically connected to said active layer,

wherein a corrected potential [[is]] applied to the other of said anode and said cathode <u>is</u> changed by said voltage changer based on said corrected signal,

wherein said voltage changer is electrically connected to said EL element of each of said plurality of pixels via a switch, and

- 24. (Currently Amended) An active matrix display device according to claim 23, wherein said display device plurality of pixels, said sensor, said CPU, and said voltage changer are formed over a same substrate.
- 25. (Previously Presented) An active matrix display device according to claim 23, further comprising an A/D (analog-to-digital) converter interposed between said sensor and said CPU, and a D/A (digital-to-analog) converter interposed between said CPU and said voltage changer.

Applicant : Shunpei Yamazaki et al.

Serial No.: 09/752,817 Filed: January 3, 2001 Page: 7 of 11

Page : / 01 11

26. (Previously Presented) An active matrix display device according to claim 23, wherein said sensor comprises a CCD (charge-coupled device) or a photo-diode.

- 27. (Original) An active matrix display device according to claim 23, wherein said information signal comprises a user's living-body information.
- 28. (Previously Presented) An active matrix display device according to claim 23, wherein said display device is incorporated in at least one selected from the group consisting of a video camera, a digital camera, a head-mount display, a car navigation system, a portable telephone, an image reproduction apparatus, a car audio equipment, and a personal computer.
  - 29. (Currently Amended) An active matrix display device comprising:
  - a voltage changer;
  - a sensor for obtaining an information signal of an environment; and
  - a plurality of pixels, each of said plurality of pixels comprising:
- at least one thin film transistor over a substrate, said thin film transistor comprising at least an active layer, and a gate electrode adjacent to said active layer with a gate insulating film interposed therebetween; and
- an EL (electro-luminescent) element comprising at least an EL layer between an anode and a cathode, one of said anode and said cathode being electrically connected to said active layer,

wherein a potential of the other of said anode and said cathode is <u>changed</u> eentrolled by <u>said voltage changer based on a corrected potential converted from</u> said information signal,

wherein said voltage changer is electrically connected to said EL element of each of said plurality of pixels via a switch, and

Applicant : Shunpei Yamazaki et al.

Serial No.: 09/752,817 Filed: January 3, 2001 Page: 8 of 11

30. (Currently Amended) An active matrix display device according to claim 29, wherein said <u>plurality of pixels display device</u> and said sensor are formed over a same substrate.

- 31. (Previously Presented) An active matrix display device according to claim 29, wherein said sensor comprises a CCD (charge-coupled device) or a photo-diode.
- 32. (Original) An active matrix display device according to claim 29, wherein said information signal comprises a user's living-body information.
- 33. (Previously Presented) An active matrix display device according to claim 29, wherein said display device is incorporated in at least one selected from the group consisting of a video camera, a digital camera, a head-mount display, a car navigation system, a portable telephone, an image reproduction apparatus, a car audio equipment, and a personal computer.
  - 34. (Currently Amended) An active matrix display device comprising:
  - a voltage changer;
  - a sensor for obtaining an information signal of an environment;
- a CPU (central processing unit) for converting said information signal to a corrected signal; and
  - a plurality of pixels, each of said plurality of pixels comprising:
- at least one thin film transistor over a substrate, said thin film transistor comprising at least an active layer, and a gate electrode adjacent to said active layer with a gate insulating film interposed therebetween; and
- an EL (electro-luminescent) element comprising at least an EL layer between an anode and a cathode, one of said anode and said cathode being electrically connected to said active layer;

wherein a potential of the other of said anode and said cathode is <u>changed by said voltage</u> <u>changer</u> <u>eentrolled</u> based on said corrected signal,

Applicant : Shunpei Yamazaki et al.

Serial No.: 09/752,817 Filed: January 3, 2001 Page: 9 of 11

wherein said voltage changer is electrically connected to said EL element of each of said plurality of pixels via a switch, and

- 35. (Currently Amended) An active matrix display device according to claim 34, wherein said display device plurality of pixels, said sensor, said CPU, and said voltage changer are formed over a same substrate.
- 36. (Previously Presented) An active matrix display device according to claim 34, further comprising an A/D (analog-to-digital) converter interposed between said sensor and said CPU, and a D/A (digital-to-analog) converter interposed between said CPU and said voltage changer.
- 37. (Previously Presented) An active matrix display device according to claim 34, wherein said sensor comprises a CCD (charge-coupled device) or a photo-diode.
- 38. (Original) An active matrix display device according to claim 34, wherein said information signal comprises a user's living-body information.
- 39. (Previously Presented) An active matrix display device according to claim 34, wherein said display device is incorporated in at least one selected from the group consisting of a video camera, a digital camera, a head-mount display, a car navigation system, a portable telephone, an image reproduction apparatus, a car audio equipment, and a personal computer.